

PM Conformity Hot Spot Analysis Project Summary Form for Interagency Consultation

The purpose of this form is to provide sufficient information to allow the Transportation Conformity Working Group (TCWG) to determine if a project requires a project-level PM hot spot analysis pursuant to Federal Conformity Regulations.

The form is not required under the following circumstances:

1. The project sponsor determines that a project-level PM hot spot analysis is required or otherwise elects to perform the analysis; or
2. The project does not require a project-level PM hot spot analysis since it:
 - a. Is exempt pursuant to 40 CFR 93.126; or
 - b. Is a traffic signal synchronization project under 40 CFR 93.128; or
 - c. Uses no Federal funds AND requires no Federal approval; or
 - d. Is located in a Federal PM attainment area (note: PM10 and PM2.5 areas differ).

Projects other than those listed above may or may not need a project-level PM hot spot analysis depending on whether it is considered a "Project of Air Quality Concern" (POAQC), and should be brought before the TCWG for a determination.

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides a sufficient level of detail for the TCWG to make an informed decision on whether or not a project requires a project-level PM hot spot analysis. For example, the TCWG will be reviewing the effects of the project, and thus part of the required information includes build/no build traffic data. It is also the responsibility of the project sponsor to ensure a representative is available to discuss the project at the TCWG meeting if necessary.

Instructions:

- 1) Fill out form in its entirety. Enter information in gray input fields.**
- 2) Be sure to include RTIP ID#. See <http://scag.ca.gov/rtip/> if necessary.**
- 3) Submit completed form to your local Transportation Commission who will submit it to the MPO. Caltrans projects can be submitted by Caltrans District representative.**

The TCWG meets the fourth Tuesday of each month at SCAG Headquarters, 818 W. 7th Street, 12th Floor, Los Angeles, CA 90017. Participation is also available via teleconference. Call (213) 236-1800 prior to meeting to get the call-in number and pass-code.

Forms must be submitted by the second Tuesday of the month to be considered at that month's TCWG meeting.

REFERENCE

Criteria for Projects of Air Quality Concern (40 CFR 93.123(b)(1)) – PM₁₀ and PM_{2.5} Hot Spots

- (i) New or expanded highway projects that have a significant number of or significant increase in diesel vehicles;
- (ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- (iii) New bus and rail terminals and transfer points than have a significant number of diesel vehicles congregating at a single location;
- (iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- (v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Links to more information:

<http://www.fhwa.dot.gov/environment/conform.htm>

<http://www.epa.gov/otaq/stateresources/transconf/index.htm>

TABLE 1
Type of Project

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| <ul style="list-style-type: none">• New state highway• Change to existing state highway• New regionally significant street• Change to existing regionally significant street• New interchange• Reconfigure existing interchange• Intersection channelization• Intersection signalization• Roadway realignment• Bus, rail, or inter-modal facility/terminal/transfer point• Truck weight/inspection station• At or affects location identified in the SIP as a site of actual or possible violation of NAAQS |
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PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTIP ID# <i>(required)</i> NCPD 02 5220 (003)				
TCWG Consideration Date				
Project Description <i>(clearly describe project)</i> The I-40/Needles Connector Project includes roadway, signing, striping and sidewalk improvements along a 6,300 FT corridor beginning on J Street from I-40 to West Broadway Street, West Broadway Street from J Street to Needles Highway, Needles Highway from West Broadway Street to North K Street, and North K Street from Needles Highway to the south abutment of the Colorado River Bridge (see Figure 1). Intersection improvements at J Street/West Broadway Street, West Broadway Street/ Needles Highway, and Needles Highway/North K Street will include traffic signals, turn lanes, and ADA pedestrian access.				
Type of Project <i>(use Table 1 on instruction sheet)</i> Intersection Signalization				
County San Bernardino	Narrative Location/Route & Postmiles Within City of Needles - 6,300 FT corridor beginning on J Street from I-40 to West Broadway Street, West Broadway Street from J Street to Needles Highway, Needles Highway from West Broadway Street to North K Street, and North K Street from Needles Highway to the south abutment of the Colorado River Bridge.			
Caltrans Projects – EA# N/A				
Lead Agency: City of Needles				
Contact Person Jeana Darlington, City Eng		Phone# (760) 326-5740		Fax# Email ndleng2@citlink.net
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 PM10				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
X	Categorical Exclusion (NEPA)	EA or Draft EIS	FONS I or Final EIS	PS& E or Construction
Other				
Scheduled Date of Federal Action:				
NEPA Delegation – Project Type <i>(check appropriate box)</i>				
Exempt		X Section 6004 – Categorical Exemption		Section 6005 – Non-Categorical Exemption
Current Programming Dates <i>(as appropriate)</i>				
	PE/Environmental	ENG	ROW	CON
Start	09/2012	11/2012	11/2012	07/2013
End	11/2012	03/2013	06/2013	07/2014

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The project purpose and benefit is to address current roadway deficiencies (including localized flooding, queuing at intersections, unsafe turn movements) and enhance pedestrian movement along the corridor. During the peak tourist season, traffic increases as much as 100 percent due to visitor and recreational traffic. The project would improve safety for travelers and the community and would be a connecting link in the 'tri-state' area of California, Arizona, and Nevada.

Purpose

The primary purpose of the Project is to:

- Address current roadway deficiencies (including localized flooding, queuing at intersections, unsafe turn movements).
- Improve safety for travelers and the community by addressing the current traffic pattern issue: the use of K Street as access to Arizona 95 through the UPRR undercrossing.

Need

The need for the Corridor Improvement Project is substantiated by the following:

- Throughout the project corridor, all intersections that require traffic control are only flashing red lights and/or stop signs. There are currently no traffic signals within the corridor. During the peak tourist season, traffic increases as much as 100 percent due to visitor and recreational traffic. The project would improve safety for travelers and the community and would be a connecting link in the 'tri-state' area of California, Arizona, and Nevada.
- There is a concern with flooding at K Street and Broadway Street due to a sag point in the profile of Broadway Street.
- In regard to pedestrian movement, sidewalks are only on one side of the street for most of the alignment and are not ADA compliant.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

Surrounding Land Use

The project corridor is located between I-40 and U.S. Route 95 (US-95). As shown in Figure 2, the City of Needles General Plan land uses along the project corridor are primarily General Commercial; and within a 1/4 mile project study area land uses include: General Commercial; Highway Commercial; Industrial; Institutional; Medium Density Residential; Neighborhood Commercial; Parks and Recreation; and Resort Commercial. In the southern portion of the project study area, starting from H Street northerly along West Broadway Street and Santa Fe Railroad intersection, existing land uses are mainly commercial. A small, five-block commercial strip consisting of restaurants, motels and inns, banks and shops sits along both sides of West Broadway Street. Recreational and institutional land uses are also located to the west and east of I-40 and US-95, including the Duke Watkins Park, Santa Fe Park and Needles Senior High School as well as scattered residential developments. The northern portion of the study area includes the area north of the Santa Fe Railroad up to the Colorado River. This area is largely single-family residential land uses, along with some institutional and recreational land uses including the Church of Christ, Needles Marina Park and the Needles Municipal Golf Course, along with several undeveloped parcels, which are located in this part of the project study area.

Existing Traffic Volumes

1. Turning Movement Counts

Peak hour turning movement counts were collected from 12:00 PM to 2:00 PM, on Sunday April 1, 2012. Based on the data collected, the peak hour occurred between 12:00 PM to 1:00 PM. Data were collected with vehicle classification, traffic volumes were adjusted based on Passenger-Car-Equivalent (PCE) ratio based on Appendix C, Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, San Bernardino County Congestion Management Program (CMP), 2005 Update. Table 1 presents Year 2012 peak hour intersection traffic volumes with PCE values.

2. Average Daily Traffic (ADT)

Average Daily Traffic was calculated based on a K factor of 10 percent. Figure 3 provides Year 2012 average daily traffic volumes.

3. Level-of-Service was determined based on Highway Capacity Manual 2010 methodology at each location. Table 2 summarizes vehicle delay (seconds per vehicle) and corresponding level-of-service value at study intersection based on existing condition without project. For Year 2012 condition, all 12 study area intersections are projected to operate at LOS C or better during peak hour.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Opening Year (2014) Condition

1 Traffic Growth

Based on Southern California Association of Governments (SCAG) census data, City of Needles had a growth of 0.3 percent over 10 years from 2000 to 2010. Using a 0.3 percent future annual growth rate would be negligible, therefore in discussion with the City of Needles staff, it was agreed upon that 0.5 percent annual growth to be applied for future traffic volume projections.

2. Opening Year (2014) Traffic Volumes

Opening Year 2014 turning movement volumes were calculated based on Year 2012 existing traffic counts. Table 3 present Year 2014 intersection peak hour traffic volumes.

3. Average Daily Traffic

Average Daily Traffic was calculated based on a K factor of 10 percent. Figure 4 provides Year 2014 average daily traffic volumes without project.

4. Level-of-Service

Level-of-Service was determined based on Highway Capacity Manual 2010 methodology at each location. Table 4 summarizes vehicle delay (seconds per vehicle) and corresponding level-of-service values at study intersections based on opening year condition without project. For Year 2014 no project condition, all 12 study area intersections will operate at LOS C or better during peak hour.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Horizon Year (2035) Condition

1. Traffic Growth

Based on Southern California Association of Governments (SCAG) census data, City of Needles had a growth of 0.3 percent over 10 years from 2000 to 2010. Using a 0.3 percent future annual growth rate would be negligible, therefore in discussion with the City of Needles staff, it was agreed upon that 0.5 percent annual growth to be applied for future traffic volume projections.

2. Horizon Year (2035) - Traffic Volumes

Horizon Year 2035 turning movement volumes were calculated based on Year 2012 existing traffic counts. Table 5 present Year 2035 intersection peak hour traffic volumes.

3. Average Daily Traffic Volumes (2035)

Average Daily Traffic was calculated based on a K factor of 10 percent. Figure 5 provides Year 2035 average daily traffic volumes without project.

4. Level-of-Service

Level-of-Service was determined based on Highway Capacity Manual 2010 methodology at each location. Table 6 summarizes vehicle delay (seconds per vehicle) and corresponding level-of-service values at study intersections based on horizon year condition without project. For Year 2035 no project condition, all 12 study area intersections will operate at LOS C or better during peak hour.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

The facility is a corridor that passes through 12 unsignalized intersections. Opening Year Build and No Build cross-street ADT, % and # trucks, truck ADT are listed in the aforementioned Tables and Figures.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

The facility is a corridor that crosses 12 unsignalized intersections. RTP Horizon Year/Design Year Build and No Build cross-street ADT, % and # trucks, truck ADT are listed in the aforementioned Tables and Figures.

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)

Three of the intersections will be signalized and as a result congestion and queuing will be reduced. Overall levels-of-service will also improve in RTP Horizon Year/Design Year as follow :

J street/BroadwayStreet :	From LOS "B" to "A"
W. Broadway Street/Needles Hwy:	From LOS "C" to "B"
N. K Street/ Needles Hwy :	From LOS "C" to "B"

Comments/Explanation/Details (*attach additional sheets as necessary*)

Based on the *Criteria for Projects of Air Quality Concern (40 CFR 93.123(b)(1)) – PM₁₀ and PM_{2.5} Hot Spots*, this project should not be of concern because intersections involved are not and will not be at Level-of-Service D, E, or F without improvements, even with the projected increase of traffic volumes in the Horizon/Design Year.

PROPOSED
ALIGNMENT

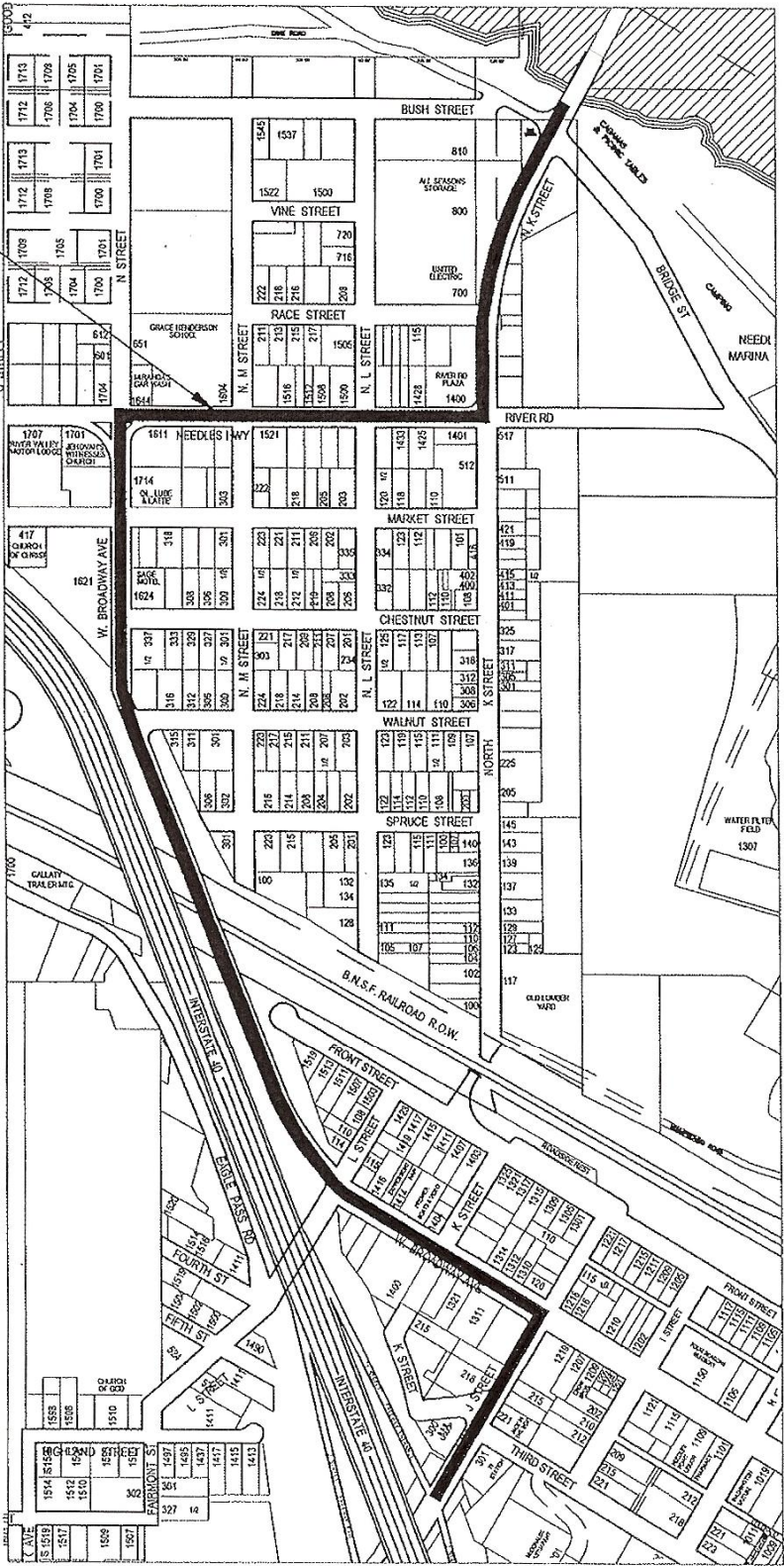


Figure 1

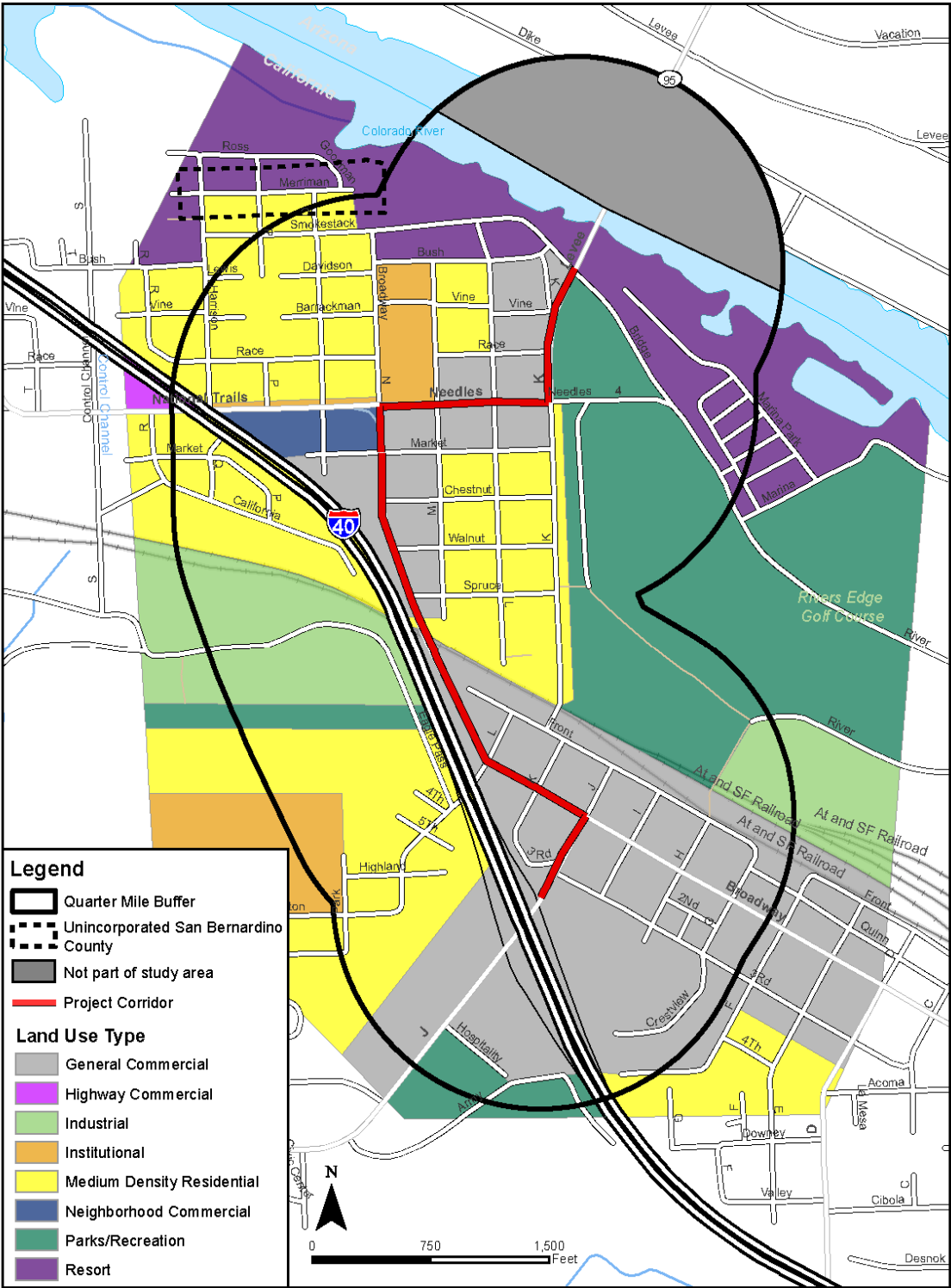


Figure 2

Table 1 Year 2012 Peak Hour Intersection Traffic Volume

2012 Traffic Volumes - No Project	Control Type	Northbound			Southbound			Eastbound			Westbound			Total
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
I-40 Eastbound Ramps/J Street	TWSC	-	-	-	48	1	3	-	155	20	109	116	-	451
I-40 Westbound Ramps/J Street	TWSC	20	0	140	-	-	-	22	186	-	-	212	79	658
J Street/3 Street	TWSC	102	0	53	4	0	0	1	219	99	37	185	3	701
J Street/W. Broadway Street	AWSC	54	95	24	2	79	114	131	88	36	7	64	1	694
W. Broadway Street/L Street	TWSC ₁	21	198	7	1	163	20	27	6	18	0	1	1	461
W. Broadway Street/Walnut Street	TWSC	-	227	3	4	181	-	-	-	-	4	-	1	419
W. Broadway St/Chestnut St	TWSC	-	222	5	1	180	-	-	-	-	0	-	0	407
W. Broadway Street/Needles Highway	TWSC	72	4	149	3	1	2	1	102	66	99	206	6	709
N. K Street/Front Street	TWSC	0	10	1	145	10	2	8	4	4	1	1	166	352
N. K Street/Needles Highway	AWSC	10	174	17	2	140	275	237	12	9	5	17	2	900
N. K Street/N. Bridge Road	TWSC	2	407	2	26	425	6	5	0	2	3	1	34	912
Harbor Avenue/Levee Way/Levee Drive	TWSC	1	399	53	7	410	0	1	0	1	43	1	9	925

Note: *all intersections operating as "unsignalized"



Table 2 Year 2012 Level-of-Service (No Project)

2012 Traffic Volumes - No Project	Delay	LOS
I-40 Eastbound Ramps/J Street	14.4	B
I-40 Westbound Ramps/J Street	10.6	B
J Street/3 Street	15	C
J Street/W. Broadway Street	11.5	B
W. Broadway Street/L Street	11.8	B
W. Broadway Street/Walnut Street	11.2	B
W. Broadway St/Chestnut St ¹	7.8	A
W. Broadway Street/Needles Highway	14.5	B
N. K Street/Front Street	10.5	B
N. K Street/Needles Highway	15.5	C
N. K Street/N. Bridge Road	20.2	C
Harbor Avenue/Levee Way/Levee Drive	20.9	C
<i>Note: *all intersections operating as "unsignalized"</i>		

¹ W. Broadway Street at Chestnut Street was analyzed using Highway Capacity Software (HCS) application

Table 3 Year 2014 Peak Hour Intersection Traffic Volumes (No Project)

2014 Traffic Volumes - No Project	Control Type	Northbound			Southbound			Eastbound			Westbound			Total
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
I-40 Eastbound Ramps/J Street	TWSC	-	-	-	48	1	3	-	157	20	110	117	-	455
I-40 Westbound Ramps/J Street	TWSC	20	0	141	-	-	-	22	187	-	-	214	80	665
J Street/3 Street	TWSC	103	0	53	4	0	0	1	221	99	37	186	3	708
J Street/W. Broadway Street	AWSC	55	96	24	2	79	115	132	89	36	7	65	1	700
W. Broadway Street/L Street	TWSC	21	200	7	1	164	20	27	6	18	0	1	1	465
W. Broadway Street/Walnut Street	TWSC	-	229	3	4	182	-	-	-	-	4	-	1	423
W. Broadway St/Chestnut St	TWSC	-	224	5	1	181	-	-	-	-	0	-	0	411
W. Broadway Street/Needles Highway	TWSC	73	4	150	3	1	2	1	103	67	99	208	6	716
N. K Street/Front Street	TWSC	0	10	1	146	10	2	8	4	4	1	1	168	355
N. K Street/Needles Highway	AWSC	10	176	17	2	141	278	239	12	9	5	17	2	909
N. K Street/N. Bridge Road	TWSC	2	411	2	26	429	6	5	0	2	3	1	34	921
Harbor Avenue/Levee Way/Levee Drive	TWSC	1	403	54	7	414	0	1	0	1	43	1	9	934

Note: *all intersections operating as "unsignalized"



Table 4 Year 2014 Level-of-Service (No Project)

2014 Traffic Volumes - No Project	Delay (sec/veh)	LOS
I-40 Eastbound Ramps/J Street	14.5	B
I-40 Westbound Ramps/J Street	10.6	B
J Street/3 Street	15.1	C
J Street/W. Broadway Street	11.6	B
W. Broadway Street/L Street	11.9	B
W. Broadway Street/Walnut Street	11.2	B
W. Broadway St/Chestnut St ¹	7.8	A
W. Broadway Street/Needles Highway	14.7	B
N. K Street/Front Street	10.5	B
N. K Street/Needles Highway	15.8	C
N. K Street/N. Bridge Road	20.4	C
Harbor Avenue/Levee Way/Levee Drive	21.2	C
Note: *all intersections operating as "unsignalized"		

¹ W. Broadway Street at Chestnut Street is analyzed using Highway Capacity Software (HCS) application

Table 5. Year 2035 Peak Hour Intersection Traffic Volumes (No Project)

2035 Traffic Volumes	Control Type	Northbound			Southbound			Eastbound			Westbound			Total
		NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
I-40 Eastbound Ramps/J Street	TWSC	-	-	-	54	1	3	-	174	22	122	130	-	505
I-40 Westbound Ramps/J Street	TWSC	22	0	156	-	-	-	25	208	-	-	238	89	738
J Street/3 Street	TWSC	114	0	59	4	0	0	1	246	110	41	207	3	786
J Street/W. Broadway Street	AWSC	61	107	27	2	88	127	146	99	40	8	72	1	778
W. Broadway Street/L Street	TWSC	23	222	7	1	182	22	30	7	20	0	1	1	516
W. Broadway Street/Walnut Street	TWSC	-	254	3	4	202	-	-	-	-	4	-	1	470
W. Broadway St/Chestnut St	TWSC	-	248	6	1	201	-	-	-	-	0	-	0	456
W. Broadway Street/Needles Highway	TWSC	81	4	167	3	1	2	1	114	74	110	230	7	795
N. K Street/Front Street	TWSC	0	11	1	163	11	2	9	4	4	1	1	186	394
N. K Street/Needles Highway	AWSC	11	195	19	2	157	308	266	13	10	6	19	2	1009
N. K Street/N. Bridge Road	TWSC	2	456	2	29	477	7	6	0	2	3	1	38	1023
Harbor Avenue/Levee Way/Levee Drive	TWSC	1	447	59	8	459	0	1	0	1	48	1	10	1037

Note: *all intersections operating as "unsignalized"



Table 6 Year 2035 Level-of-Service (No Project)

2035 Traffic Volumes	Delay (sec/veh)	LOS
I-40 Eastbound Ramps/J Street	15.4	C
I-40 Westbound Ramps/J Street	10.9	B
J Street/3 Street	16	C
J Street/W. Broadway Street	12.4	B
W. Broadway Street/L Street	12.3	B
W. Broadway Street/Walnut Street	11.5	B
W. Broadway St/Chestnut St ¹	7.9	A
W. Broadway Street/Needles Highway	16.1	C
N. K Street/Front Street	10.8	B
N. K Street/Needles Highway	18.7	C
N. K Street/N. Bridge Road	22.5	C
Harbor Avenue/Levee Way/Levee Drive	23.8	C
Note: *all intersections operating as "unsignalized"		

¹ W. Broadway Street at Chestnut Street was analyzed using Highway Capacity Software (HCS) application